4

G. R. S. IX-5]

*Previous references.*

File No. 12-16

1916.

Serial Nos. 113-136

( Edn. )

*Later references.*

Edn 616-17-29

" 231-18-3

# GENERAL AND REVENUE SECRETARIAT.

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9

*Serial Nos.*

**Part B for** June '17

---

SUBJECT.

Certain modifications in the Ordinance relating to the Courses of studies in the University.

---

To the Registrar Visvabharati University

No 10069 dt 11.6.17

Approved of the ——

GENERAL AND REVENUE SECRETARIAT.

( Edn. )

NOTES.

File No. 12-16

FILE HEADING.

The Mysore University

From

The Registrar Mysore Univ.

No. 4688/39-16 Dated 11.4.17 Received 16.4.17

| Diary No. 5411 | Enclos. 1 | Spare Copies. | Serial No. |
|---|---|---|---|

BRIEF ABSTRACT OF LETTER.

Requests sanction of Govt to certain modifications in the existing ordinances respecting the courses of studies for the several univ. classes & also detailed courses for the B. Sc.

NOTES AND ORDERS.

The modifications proposed are in respect of the courses of studies. The courses of studies for the second & third years B. Sc Perhaps these may be brought under Ordinance. Submitted with a draft sanct.

SBV. 17/4

For approval & orders

17/4

May be approved by my colleagues

Dewan Chief Secy 17/4/17

Mr 21.4.17

NOTES—First Sheet.

3

WD 1233—GPB—60,000—1-12-16—S. 2

G. R. S. III-2]

General and Revenue Secretariat. | File No. 12 of 1916

Serial No.

6478
12.5.17

The Despatch of the Senate may be offered.
Please circulate a return for submission

12.5.17

Secretary

12/5 — D.W. 14/5

NOTE—Contn. sheet.

13 4

(For disposal by circulation) No. C. 3477 17

14 : 5 : 1917

# GENERAL AND REVENUE SECRETARIAT.

**Council Matter.**

## SUBJECT.

Modifications in the ordinances of the Mysore University relating to the courses of studies.

## CIRCULATED TO THE MEMBERS OF COUNCIL.

By Order,

D. M. Narasimha Rao 14/5

14th May 191 7.

*Secretary to Government.*

---

**Extraordinary Member of Council.** approved 25.5.17

3125 / 15.5.17 **First Member of Council.** approved 17/5

369 / 14.5.17 **Second Member of Council.** Approved 16:5

Please put up a D-SN 24/5

WD 2012—GPB—1 000—9-2-16

WD 1238—GPB—60,000—1-12-16—S.

5

G. R. S. III-2.

(4

General and Revenue Secretariat.

File No. 12 of 1916.

| Serial No. | |
|---|---|
| | D.S.N. Bund SW 2875 |
| 6720 25-5-17 | Dewa |
| | B 2457 D.M. 24/5 |

NOTE—Contn. sheet.

(5 6

*Submitted to His Highness.*

draft for approval The accompanying draft order sanctioning certain modifications in the Ordinances relating to the courses of studies resolved upon by the Senate and agreed to by the Members of Council may kindly be approved.

M. Visvesvaraya

28th May 1917.

(6

Record of Cases submitted for the Orders of His Highness the Maharaja.

## *Subject.*

Certain modifications in the Ordinances relating to the Courses of Studies in the University.

1222

## *Order.*

KRW
25/5/17

N. 6

3555/20.6 1916

149/20.6.17

Lanka, Secy
31.5.17

1/6. James D.M. 1/6

WD 1283—GPB—60,000—1-12-16—S.

8

G. R. S. III-2]

| General and Revenue Secretariat. | File No. | of 191 . |
|---|---|---|

Serial No.

W.D.

Lr No. 10064 dt 11.6.17 Ltr dtd
Sanction's the canvas proposed.

NOTE—Contn. sheet.

REV. & REV. SECT.
VI
2 APR 1917

GBPM—2,500—30-3-1917.

No. 4688/39-16. Office of the Mysore University,

Dated Mysore, 11th April 1917.

DIARY No. 54/16.

19-19
SECTION Con
FILE No. 12-16
[illegible] 119.

From

Thos DENHAM, Esq., M.A.,
*Registrar, Mysore University,*
*Mysore.*

To

P.G. D'Souza, Esq., B.A., B.L.,
Secretary to the Government of
His Highness the Maharaja of Mysore,
Departments of Education & Agriculture,
Bangalore.

Sir,

I am directed to forward herewith a copy of extract from the proceedings of the meeting of the Senate held on 22nd March 1917 relating to the modifications proposed in the existing ordinances respecting the courses of Studies etc., for the several University classes and also detailed courses for the B.Sc., degree, and to request that you will be so good as to obtain sanction of Government to the same.

2. I am to state that the courses for the B.Sc. degree and the modifications in the courses as defined in the Ordinances were all proposed by the several Boards of Studies and were approved by the University Council and the Senate.

I have the honour to be,
Sir,
Your most obedient servant,
Thos Denham
Registrar.

KRI.

(2 10

Extract from the proceedings of the meeting of the Senate held on 22nd March 1917.

xx xx xx

12. Proposals of the Boards of Studies.

( a ) English.

Mr. Tait moved the following proposition and Mr. C.S. Balasundaram Iyer seconded :-

(a) *English.*

1. That the following note be added to Ordinance 65 under Final Examination for the B. A. Degree, I. English :—

The papers on drama, poetry and prose shall also contain general questions based upon the books recommended for study under Ordinance 52—I English (*b*) and (*c*).

2. That the following note be added to Ordinance 65 under—Final Examination for the B. A. Degree. *I English*, IV Composition ~~General~~ :—

The papers shall be in two parts. The first part shall contain subjects from the texts prescribed for non-detailed study, and the other shall contain subjects of a general nature. The candidates shall be required to choose a subject from each part.

Passed unanimously.

( b ) French.

Mr. F. R. Sell moved and Father Tabard seconded the following proposition :-

(*b*) *French.*

3. That in Ordinance 52, II (*g*) 2, (p. 8) the words "Composition and Translation" be inserted instead of "Translation."

Passed unanimously.

## A. (a) Mathematics.

Mr. Metcalfe moved and Mr. B. Hanumanta Rau seconded the following propositions :-

III. Optional Subjects.

A. (*a*) *Mathematics.*

That the following modifications be made in the detailed syllabuses for the B. A. Degree Examination :—

Page 8 of the Ordinances—

(a) Algebra 1. Insert 'rational' between 'any' and 'index."

2. 'Convergence and divergence of series' to precede 'The Binomial Theorem, etc.'

(b) Trigonometry (1) 'Division formulæ' to precede 'properties of triangles,' etc.

(2) 'Solution of Equations' to be separately mentioned.

(c) (1) Geometry para 1—"The fundamental properties of the parabola" to form a separate para.

Page 9 of the Ordinances :—

(c) Geometry (continued) : Under '*Elementary Maxima* and *Minima*'—read 'of all isoperimetric polygons of the same number of sides the maximum one is equilateral.'

Page 10 of the Ordinances :—

(d) Analytical Geometry : 'The general equation of the second degree' to precede 'rectangular Axes.'

(f) Dynamics: Substitute 'As in Hick's *Elementary Dynamics*' for the whole para.

Passed unanimously.

## (b) Physics.

Mr. Metcalfe moved and Mr. Usher seconded the following proposition :-

(*b*) *Physics.*

1. That the following modifications be made in the Physics Syllabus of the Entrance Class. (Page 24 of the Ordinances.) :—

| | |
|---|---|
| Heat | ... The words from "vapour" to "engine" inclusive, to be omitted. |
| Sound | ... To be omitted. |
| Magnetism | ... Present syllabus to be cancelled and the following substituted :— Magnets and Magnet poles. Law of inverse squares. Shape of fields due to straight and bent magnets. Magnetic compass. Simpler properties of iron and steel. |
| Electricity | ... Present syllabus to be cancelled and the following snbstituted :— Simple voltaic cell. Electric current. Electrolysis and Faraday's Laws. Magnetic field of current. Field at centre of circular coil, tangent galvanometer. Electromagnets. Action of magnetic field on electric current. Suspended coil galvanometer. Heating effect of current. Joule's Law. Electromotive force. Resistance, Ohm's Law. Measurement of electromotive force and of resistance. Wheatstone's bridge, potentiometer. Description of simple applications such as telegraph, bells, lamps and direct current motors. |
| Light | ... Omit. |

ii. That the following be substituted for the physics syllabus for the first Year College Course. (Page 10 of the Ordinances.)

The course prescribed for the Entrance Class and, in addition, the following :—

Sound ... Production and propagation. Velocity of sound in gases. Reflection, echoes. Loudness and pitch of musical notes. Longitudinal vibrations of air. Transverse vibrations of strings.

Heat ... Expansion of gases. Charles' Law. Gas thermometers. Vapour pressure. Conduction, convection and radiation. Heat and work, mechanical equivalent of heat. Principle of steam engine.

Light ... Rectilinear propagation of light, shadows. Laws of reflection and refraction. Lenses and mirrors, images. Telescope and microscope. Dispersion. Production of a pure spectrum. Use of simple spectrometer.

Electrostatics ... Production of electric charges by friction. Conductors and non-conductors. Gold leaf electroscope. Electric induction. Influence machines. Faraday's ice-pail experiment. Inverse square law. Elementary notions of potential.

iii. That the following additions be made to the present syllabus for the Second and Third Years. (Page 10 of the Ordinances) :—

*Properties of matter* ... Add "Gravitation, determination of $g$." before "Elasticity." Insert "Surface tension" between "Viscosity." and "Simple elements of ..... etc."

*Sound* ... "Interference and diffraction" to read "Interference. Diffraction." Add after "pitch" "Vibrations of strings, rods and gas columns. Resonance."

*Heat* ... Substitute "Thermometry, Calorimetry, Conduction, Convection and Radiation. Change of state. Simple thermodynamics."

Passed unanimously.

## (d) Natural Science.

(*d*) *Natural Science.*

A. That the following alterations be made in the Natural Science Syllabus for the University Entrance Examination. (Pages 25 and 26 of the Ordinances) :—

ELEMENTARY BOTANY.

1. Sections 1 and 4 should be united to read as follows :—

*External Morphology and Physiology.*—The root, stem, bud, leaf, flower, fruit and seed; their component parts and their chief modifications and functions treated practically.

2. Under section 2, *Systematic Botany*, the list of orders to be studied should be as follows :—

Capparideæ, Malvaccæ, Rhamneæ, Leguminoseæ, Myrtaceæ, Umbelliferæ, Rubiaceæ, Compositæ, Apocynaceæ, Asclepiadaceæ, Solanaceæ, Acanthaceæ, Labiatæ, Euphorbiaceæ, Palmæ, Scitamineæ, and Gramineæ.

3. Section 3 Ecology should be omitted as should also the paragraph referring to practical work.

4. Under "*Outlines of Human Physiology*" the note at the beginning should read as follows :—

The subject will be treated from a practical stand-point, with, as far as possible, demonstrations on a small mammal such as the rabbit.

5. The first section of the syllabus under the same heading should read as follows :—

The leading facts concerning the *chief organs* of the body and the blood.

B. That the following changes be made in the Natural Science syllabus for the B.A. Degree Examination. (Pages 11 to 14 of the Ordinances.) :—

(*d*) *Zoology*—First Year

(i) Para 1. "*Outlines of General Biology*" should be deleted.

(ii) In para 2 "*Outlines of Zoology*," the following alterations should be made :—

The word "external" should be deleted; the word "characters" should be changed to "characteristics;" the word "Primary" should be deleted; the phrase "with proper omissions" should be deleted.

(*e*) *Geology*.

The syllabus should be divided as follows :—

First year—Physiography.

Second and Third years—the remainder of the syllabus.

(*f*) *Botany*.

The following syllabus for Botany should be inserted :—

First Year.

*Histology* :—The microscopic structure of root, stem, leaves, and reproductive organs of phanerogamic groups. Study of the chief modifications in structure of the different organs. Reserve materials found in the various organs with simple tests for determining them.

*Physiology* :—Composition of plants and how the various chemical elements and compounds are taken up by them. Functions of the leaves treated in detailed including assimilation, respiration, traspiration and the movement of assimilated products. Functions of root and stem. Functions of reproductive organs including formation of seed and methods of seed dispersal. Parasitism and symbiosis.

NOTE :—This will be treated as far as possible experimentally and courses in Histology and Physiology will proceed side by side so as to correlate structure and function.

Second and Third Years.

1. Principal characteristics of Gymnosperms, Lycopodinæ, Hepaticæ, Muscineæ, Filicinæ, Algæ, Fungi and Bacteria.

2. Characteristics of the following, Phanerogamic, orders; Anonaceæ, Menispermaceæ, Cruciferæ, Sterculiaceæ, Geraniaceæ, Rutaceæ, Meliaceæ, Sapindaceæ, Rosaceæ, Cucurbitaceæ; Convolvulaceæ, Scrophularineæ, Verbenaceæ, Amaranthaceæ, Santalaceæ, Urticaceæ, Piperaceæ; Liliaceæ, Amaryllidaceæ, Orchidæ, Aroideæ, Cyperaceæ, in addition to the orders mentioned in the Entrance course.

Passed unanimously.

## History and Economics.

Mr. N.S. Subba Rao moved the following proposition :—

HISTORY AND ECONOMICS.

i. That the following be substituted for "Outlines of European History" under (e) History in the Entrance Course (page 26 of the Ordinances) :—

Outlines of European History. Text-book—Outlines of European History by Grant (Longmans).

ii. That the following be substituted for Elementary Economics under (f) Economics. (Page 26.)

Recent Economic History of England. Text-book—~~Economic~~ Industrial History of Modern England by Peris.

iii. That the following be substituted for the course given under B (a) History on Page 14 of the Ordinances :—

First Year.

| SUBJECTS. | BOOKS RECOMMENDED FOR STUDY. | ADDITIONAL READING. |
|---|---|---|
| 1. History of Greece ... | Oman : History of Greece | Bury : History of Greece. |
| History of Rome ... | Pelham : Outlines of Roman History | How and Leigh : History of Rome. |
| | | Shuckburgh: History of Rome |
| | | Heitland :—Outlines of History of Rome. |

| | | |
|---|---|---|
| 2. History of England ... | Gardiner: Students' History of England | Green's Short History of the English People (New edition).<br>Lingard: History of England (One Volume edition). |
| | Second Year. | |
| 1. History of India to 1200 A.D. | V. A. Smith: History of Early India<br>K. V. Rangaswami Iyengar's Pre-Musalman India | MacDonnell: History of Sanskrit Literature.<br>Gazetteer of India (Historical Introduction).<br>Rhys David's Buddhist India.<br>S. Krishnaswamy Iyengar's Ancient India. |
| 2. History of Europe 476-1453. | Six Ages of Europe (Methuen) | Emerton: Mediæval Europe.<br>Bryce's Holy Roman Empire.<br>Hill: History of European Diplomacy, Vols. I & II. |
| | Third Year. | |
| 1. History of India 1200-1910. | Lane-Pool: Mediæval India<br>Innes: British India<br>Lyall: Rise of British Dominion in India | Keen: History of India.<br>Cambridge Modern History, Chapters on India. |
| 2. History of Europe, 1453-1878. ... | Six Ages of Europe (Methuen) | Bryce's Holy Roman Empire.<br>Acton's Lectures on Modern History. |

iv. That the following be substituted for the course given under (*b*) Economics and Political Science. (Page 14.):—

*Economics and Political Science.*

| | | |
|---|---|---|
| | First Year. | |
| i. The British Constitution | Marriot: English Political Institutions | Courtney: The Working Constitution of the United Kingdom.<br>Low: Governance of England.<br>Lowell: Government of England, Vol. I. |
| ii. Indian Economic Conditions. | Banerjea: Study of Indian Economics | Morrison: Economic Transition in India.<br>Moreland: Elementary Economics for Indian Students. |
| | Second Year. | |
| i. Economics of Industry | Ely and Wicker: Elementary Economics (revised by L. L. Price). | Carver: Distribution of Wealth.<br>Taussig: Principles of Economics.<br>Marshall: Elements of Economics. |
| ii. Comparative Politics ... | Sidgwick: Development of European Polity<br>Leacock: Elements of Political Science | Wilson: The State.<br>Dicey: Law and Custom of the Constitution.<br>Rangaswamy Iyengar: The Indian Constitution. |
| | Third Year. | |
| i. Currency, Banking, International Trade and Public Finance | Ely and Wicker: Elementary Economics | Withers: Meaning of Money and Money Changing.<br>Keynes: Indian Currency and Finance.<br>Taussig: Principles of Economics. |
| ii. Analytical and Deductive Politics ... | Sidgwick: Elements of Politics | Dicey: Law and Custom of the Constitution.<br>Pollock: History of the Science of Politics.<br>Dunning: History of Political Theories. |

Mr. S. Krishnaswamy Iyengar seconded and in doing so proposed that Rapson's Ancient India be added to the books recommended for study in the second year and Robert's History of India to the books prescribed for additional reading in the 3rd year.

Passed unanimously.

(g) Logic.

Mr. M. Shama Rao moved and Mr. M.C. Rangaiengar seconded the following proposition :-

(g) *Logic.*

Terms, their distinctions : Formal division and Definition ; Propositions ; Immediate Inference ; Syllogism ; Mood and Figure ; Reduction ; Hypothetical Syllogism ; Disjunctive Syllogism.

A very elementary treatment of.—The relation of Deduction and Induction, Causalty and Uniformity, Analogy, Enumeration, Scientific Method, Observation and Experiment, Hypothesis, Verification, Mill's Methods.

Mr. Mackintosh considered the original as well as the proposed Course unsuitable. Mr. Sell proposed that the second para be omitted.

Mr. Shama Rao stated that the Board of Studies in Mental and Moral Science had deliberately accepted that Course after due consideration.

Votes were then taken for allowing the amendment.

19 votes were recorded in favour and 12 against.

The amendment was allowed.

19 votes were recorded for and 3 against, the amendme

P a s s e d.

The proposition as amended was put to the vote.

19 voted for and none against. P a s s e d.

B.Sc. Course.

Mr. Metcalfe moved and Mr. Usher seconded the following propositions:-

B. Sc. Cours

That the following be the courses of Studies for the second and third years B.Sc. in Mathematics, Physics, Chemistry, Zoology, Geology and Botany taken as *main* Subjects:—

## (a) Mathematics.

Second and Third Years.

*Pure Mathematics.*

Pure Geometry, Algebra and Theory and Equations, Trigonometry Plane and Spherical, Differential and Integral Calculus, Elementary Differential Equations, Co-ordinate Geometry of two and three Dimensions.

*Applied Mathematics.*

Statics, Dynamics of a Particle, Dynamics of a Rigid Body (two Dimensions), Hydrostatics and Astronomy.

## (b) Physics.

Second and Third Years.

The general principles of Physics treated experimentally and Mathematically to the extent of simple differential equations. A feature would be made of instruction in elementary work-shop practice applied to the construction of apparatus, and in laboratory technique.

## (c) Chemistry.

Second and Third Years.

1. Historical and Theoretical Chemistry.
2. Inorganic Chemistry.
3. Physical Chemistry.
4. Chemistry of Carbon Compounds.

The practical course would include qualitative analysis of mixtures of inorganic substances and of minerals; volumetric and gravimetric analysis, including the determination of carbon, hydrogen, nitrogen, and chlorine in organic compounds; inorganic and organic preparations; and simple physicochemical measurements.

## (d) Natural Science.

Where any of the three subjects Zoology, Geology or Botany is taken as a major subject for the B. Sc. degree the following additions should be made to the syllabus of the subjects as given for the B. A. degree for the second and third years:—

Zoology.

1. Early development of the Frog and the Chick and outlines of vertebrate Embryology.
2. General Histology of animals.
3. Outlines of Palaeozoology; Evolution and Heredity.

Geology.

*Mineralogy and Crysallography.*—The thirty-two types of crystals symmetry, theories of crystal structure, systems of crystal notation, zonal characters, crystal projections and drawing; twin crystals, grouping and irregularities of crystals, parting planes, percussion figures, etched figures, etc. Use of the Reflecting Goniometer. General mathematical [illegible] of crystal angles.

Passed unanimously.

Extract.

Registrar.

Reply

Vg. 6.17
30

Dear Mr Denham,

With reference to your D.O. letter No. 7678 of 28th June 1917 I write today that the omission due to oversight has been rectified in the order which is herewith ref'd. duly corrected.

Yours truly
H. R. G. Waugh.

19

Urgent.

7678

**Office of the Mysore University,**

*Dated Mysore,* .....28th.....J...u...n...e191 7

Dear Mr. D'Souza,

I enclose herein the copy of Government Order No.10069/Edn.12-16-136 dated the 11th instant received in this office for perusal and kind return when done with.

The manuscript note against the preamble goes to restrict sanction to the Courses of Studies for the B.A. and B.Sc. degrees, whereas my letter No.4688 dated the 11th April solicited sanction to certain modifications in the Course of Study for the Entrance Examination also.

Will you kindly let me know if a separate order will be issued conveying sanction to these modifications in the Entrance Course ?

Yours sincerely,

P.C.D'Souza,Esq.,B.A.,B.L.,
Secretary to the Government,
Departments of Education and Agriculture.

G.R.S. 28]

Diary No. of letter replied to 5614

GENERAL AND REVENUE SECRETARIAT.
( )

, the 191 .

Date of issue 11-6-17

Signed by

May this be

i printed?

ii treated as a standing order?

iii published in the Gazette English part?

iv translated?

v placed at the disposal of the Press?

vi published in the Gazette Kannada part?

Ex-File No. 2/16
Serial No. 136

*Proceedings of the Government of His Highness the Maharaja of Mysore*

READ—

Letter No 4688/39-16 dated 11.6.17 from the Registrar Mysore Univ. recommending sanction of Govt to

~~ORDER THEREON.—No.~~

certain modifications in the ~~existing~~ Ordinances relating to the courses of Studies for the B.A. & B.Sc. degrees & the Entrance Exam. resolved upon by the Senate of this Univ.

over.

SUBJECT.

GPB—50,000—4-12-13

at their meeting held on
22.3.17.

Order: No. 1 to 9

Sanctioned

Note
17/4

Sec. Edn.
Bill Draft 17/4/17

To,

The Regr., Mys. Univ.